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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/069,947	04/30/1998	JINSAUN CHEN	4006001	3924

7590 03/01/2004

DONALD C. CASEY
311 NORTH WASHINGTON STREET
SUITE 100
ALEXANDRIA, VA 22314

EXAMINER

GRIER, LAURA A

ART UNIT	PAPER NUMBER
2644	19

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/069,947

Applicant(s)

CHEN, JINSAUN

Examiner

Laura A Grier

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 1998 (see paper no. 4 - PTO 94) is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 2, line 10, recites “a detect circuit”, the specification fails to disclose a detect circuit as a part of the second circuit. There is insufficient antecedent basis for this limitation.

Claim Objections

2. Claim 2 is objected to because of the following informalities: Claim 2, line 7, “second” should read as -- sound --.

The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery. Claim 2, line 3, recites, “said device”, provides indefiniteness of whether the 3-in-1-device and the headphone structure is one in the same or two different devices. The suggested claim language is as follows: -- said headphone structure --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Andrea et al, U. S. Patent No. 6061456 in view of Borchardt et al., U. S. Patent No. 5666658.

Regarding claim 2, Andrea et al. (herein, Andrea) discloses a noise cancellation apparatus (figure 9C) comprising a headset incorporating an active noise reduction device (400):

the headset comprises left case (402) and cover (403) with an output transducer (460) and right case (402) and cover (403) with an output transducer (460) coupled by a headband (401) – (col. 19, lines 65-67 and col. 20, lines 1-3, 10-13), which reads the headphone structure including the right and left cover speakers, and a headband for interconnecting the speakers; and further, the left and right ear covers comprise a circuit card (412) and further Andrea discloses that printed circuit boards may be used in headset assembly for providing circuits (col. 22, lines 48-54), which reads on a PCB installed in the headphone structure/device having 1st, 2nd and 3rd circuits;

the headset comprises a sensor microphone (450) that picks up noise, phase detection is taught as evidence by the presence of phase agreement in relation of the microphone and speaker, wherein the speaker provides a sound signal opposite phase of the noise (col. 30-36), which read the 1st circuit being an anti-noise circuit with a microphone, phase detection coupled the speakers for an opposite phase sound wave output;

a means is provide for providing an external audio input to the headphones, thus constituting the audio input being coupled to the phase detection and the speakers.

Even though, Andrea obvious includes some type of receiver as evident by the fact that an audio signal is being received and processed by the headphone circuitry and indicates that other devices may be used with this headset (col. 35, lines 27-36), Andrea fails to specifically disclose a radio circuit system comprising an am/fm receiver.

Regarding the radio circuit system comprising an am/fm receiver, Borchardt et al (herein, Borchardt) disclose a wireless signal transmission system, method and apparatus. Borchardt's disclosure comprises a receiver comprising a headset which includes a FM receiver which down converting, demodulation, a detector, all in which may be provided on an integrated circuit –IC, which support U-circuit IC (figures 7A-7B and col. 14, lines 62-67 and col. 15, lines 1-50), which reads on 2nd circuit system being a radio circuitry ,therein as claimed.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Andrea by providing a radio circuit with an am/fm receiver for the purpose of enabling the user of the headphone to receive high fidelity audio quality via the receiver as taught by Borchardt, without the disturbance of ambient noise.

Response to Arguments

5. Applicant's arguments, see page 6-8, filed 07/11/02, with respect to the rejection(s) of claim(s) 1 under U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Andrea and Borchardt et al. Andrea discloses the essential concept/scope of the invention with an ANR (active noise reduction) headset with the coupling microphones to the speakers of the headset for adequate phase detection, and a noise free output,

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and Andrea indicates that even though, his invention is directed to a telephony other audio devices may be coupled to the headset.; and Borchardt provides the added support of the components of an radio circuit comprising a am/fm receiver with the conventional components of a receiver.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG
February 23, 2004

Laura A. Grier